

DOCUMENT RESUME

ED 263 370

CE 042 873

AUTHOR Long, James S.
TITLE How Will Extensionists Keep Up-to-Date with Research?
PUB DATE Nov 84
NOTE 9p.; Paper presented at the Annual Meeting of the American Association for Adult and Continuing Education (Louisville, KY, November 1984).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adult Education; Computer Oriented Programs; *Databases; *Extension Agents; *Extension Education; Information Retrieval; *Online Searching; *Research Utilization; Search Strategies

ABSTRACT

Extensionists need to make the "ASIAN Connection"--become Aware of the spectrum of research, Select program-related research, Integrate research from many disciplines, and Apply it in a way useful to clientele. Extensionists currently use a wide variety of traditional techniques to make the "ASIAN Connection." One relatively new technique has tremendous potential--personally accessing bibliographic research databases via microcomputer. Using key words, extension faculty can define dimensions of real problems and personally search over 1,200 computer-readable databases. An interactive microcomputer search conducted personally by the user (extension worker) with assistance from a search technician makes the searcher aware of available research and the number of citations. Teams of specialists might conduct searches incrementally and interactively to help discover the application of new ideas to a given practice or to a goal. Teams of researchers and extensionists might collaborate earlier to identify research ready for dissemination through extension. Information on databases includes printed aids, database description and accessing procedure supplied by the database, and information from the vendor. Training on database searching is available through workshops and consultation. Administrative policy questions concern state support, who will have access, and budgeting for access. (An appendix lists actual database searches for extension programming.) (YLB)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED263370

How Will Extensionists Keep Up-To-Date With Research?

James S. Long
Staff Development Specialist
Washington State University
Pullman, WA 99164

Cooperative Extension Unit
American Association for Adult and Continuing Education
Louisville, KY
November, 1984

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

J Long

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

Introduction

"People have problems and universities have departments." And in the middle is an educational broker - the Extension worker - who also has a problem connecting people problems to research that is conducted world wide, in so many disciplines, by so many sponsors - universities, yes, but also government agencies, industry, foundations, institutes, consortia....

How will Extensionists:

- ° become aware of the spectrum of research?
- ° select program-related research?
- ° Integrate research from so many disciplines, and
- ° apply it in a way that's useful to clientele?

In short, how will Extensionists make what I call the "ASIAN Connection?"

Some Techniques

As a staff development specialist who has supported some newer training techniques and recently completed a professional study leave, I'm impressed with the wide spectrum of techniques Extensionists use to make the "ASIAN Connection":

1. Read research journals, yearbooks, newsletters, proceedings, current topics.
2. By phone, tap into "centers of excellence," e.g. Gene Summers, University of Wisconsin, on rural industrialization.
3. Team teach with a researcher, e.g. team with Ray Wright, WSU animal physiologist, on embryo transfer in dairy cattle.
4. Team with other specialists on a given practice, e.g. conservation tillage or preparing meals for teen age athletes.
5. Write for information from a clearinghouse, e.g. Food and Nutrition Information Center of USDA.
6. Subscribe to research syntheses of a clearinghouse, e.g. "Pathfinder" published by FNIC.
7. Do applied research part time, as in the Farming Systems Research and Extension Project in Florida.
8. Take a sabbatical!
9. Advise graduate students.

10. Conduct individualized studies during inservice education on campus.
11. Use and contribute to the development of computer decision aids, e.g. Nebraska's AGNET, and to the development of local databases, e.g. Purdue's "Soil Maps and Interpretation System" on FACTS.
12. Agree with a library to run a literature search.

A Promising Newcomer

I'm also impressed with the potential of one relatively new up and coming technique--personally accessing bibliographic research databases via microcomputer.

Most specialists, and many agents, I'd guess, have use of a microcomputer. With appropriate hardware and commands, the microcomputer can "talk" by an ordinary telephone with a mainframe computer that stores research information. An attached printer can produce a hardcopy of the "conversation."

Staff of a database are trained in disciplines represented by that database; staff regularly review and select research articles to enter into the database; they prepare a citation and, perhaps, an abstract using an index of "key words." The index, itself, is often developed cooperatively with the profession or an industry.

Using these key words, Extension faculty can define dimensions of real problems and personally search over 1200 computer-readable databases. The use of a consistent indexing system and key words helps searchers find all related studies in the database - but only those citations that are related. Combining keywords helps narrow the scope of the printout to just those studies that integrate ideas the searcher is thinking about.

Sometimes the index itself is problem oriented. For instance, CRIS - Current Research Information System - enters studies by problem area - water conservation, crop protection, family resource management....

To illustrate the scanning and selecting power of a computer search, here's an example of a search that Bill Kidd, Extension Forester at West Virginia University, conducted of AGRICOLA in the fall of '84:

<u>Key Words</u>	<u>No. of Citations</u>
white pine	439
white pine regeneration	5
eastern white pine regeneration	1

Cash cost of finding that one, useful citation was only \$4.44! How much time - in dollars - would it have cost to search manually?

The appendix introduces other experiences that illustrate how searches helped throughout the program development and evaluation process.

So, an interactive microcomputer search conducted personally by the immediate user - a savvy Extension worker - with, perhaps, assistance from a search technician, can help the searcher become aware of what research is available and the number of citations; the citations themselves (that show on the screen or are printed) can help the searcher select studies for further consideration; combining key words draws out only those studies that help the searcher integrate key elements.

Applying the research is yet another step in making the ASIAN connection. And it's not easy. Here's a couple of observations. Carefully selecting studies helps a lot, I think, for it screens out studies unrelated to the field problem. Second, I'd like to see how teams of specialists might conduct searches incrementally, interactively to help discover the application of new ideas to a given practice - drip irrigation, for instance - or to a goal - increasing retention of volunteer leaders, for example.

And, perhaps, teams of researchers and Extensionists might further collaborate earlier to identify research that is ready for dissemination through Extension to apply to field problems. "Research Results" in the National Accomplishments Reporting System is an example, I believe.

How to find out which database to search? Printed aids are available. One is the massive directory of databases prepared periodically by Martha Williams ⁽¹⁾ at the University of Illinois-Urbana. Another is the database description and accessing procedure supplied by the database (e.g. AGRICOLA) and information from the "vendor" - a commercial firm like Dialog or BRS that ⁽²⁾ brokers clusters of databases.

And the costs? They include, for example:

- computer search time
- phone charges (after hours and local area networks are cheaper)
- whether printouts are typed on-line or off-line and then mailed
- vendor's subscription fee, if any; and
- purchase of documentation about the vendor and databases.

Training through workshops and consultation is readily available to help faculty learn to search databases. Those who offer workshops include the vendors/databases, campus libraries (as at Ohio State University) and the National Agriculture Library in Beltsville.

Some Administrative Policy Questions

The potential is there. Should a state Extension Service support the Extension worker's use of micro's to search databases? whose access? specialists only? or agents, too? What would direct access do to relationships between Extensionists and researchers? between agents and specialists? What will happen to relationships between Extension and the clientele who access databases with their modems and micros? How should we budget for it? for access during what time of day? with what equipment? through what vendors? to access which databases?⁽³⁾

A Concluding Note

People problems are increasingly intricate and complex. Research is ever more specialized and dispersed. Extension's information brokering role is becoming even more difficult.

To further equip the Extensionist to play this demanding role, many techniques are available.

I predict that investments which enable Extensionists to personally search bibliographic databases with microcomputers will pay off handsomely. For they will help Extension workers keep up-to-date and further enable them to make those critical "ASIAN Connections;" they will help us become aware of more research, select fitting studies, integrate research from different sources and apply new knowledge to real people problems.

But for us, as an organization, to support this technique raises a number of administrative choices and program leadership questions that we'll want to anticipate very clearly.

Notes

1. Martha E. Williams and others, Computer-Readable Databases, White Plains, New York: Knowledge Industry Publications, Inc. 1982.
Charles Rubin,
"Touring the On-Line Databases",
Personal Computing, January 84.
2. BRS - Bibliographical Retrieval Services, 1200 Route 7, Latham, N.Y. 12110.
Dialog Information Services, 3460 Hillview Ave. Palo Alto, CA 94304.
3. Also, see. Computer - Based National Information Systems, Technology and Public Policy Issues by Office of Technology Assessment, John H. Gibbons, Director. September, 1981.

ILLUSTRATION OF NARS AND RESEARCH DATABASE SEARCHES
FOR EXTENSION PROGRAMMING*

USER	TOPIC	PURPOSE	DATABASES
Bill Kidd, Extension Forester, WVU	Regeneration of Eastern White Pine	Identify recent research applicable to W. Va.	°NARS °CAIN (BRS's AGRI-COLA) °BRS/BIOL
William van Eck, Extension Soils Specialist, WVU	Pollution of ground water used for drinking	Identify information for preparing project proposal	°AQUALINE °WATER RESOURCES ABSTRACTS °WATERNET °POLLUTION ABSTRACTS °IRIS/ERIC (in the above sequence)
Shirley Eagen, Personal and Family Development Specialist, WVU	Motivations of Extension homemaker volunteers	Identify reasons why homemakers volunteer/do not volunteer for homemaker leadership activities such as teaching.	°NARS °CROS/SS °ERIC °PSYCH ABSTRACTS °MENTAL HEALTH
Patrick Nester, 4-H Specialist, WVU	Retention of 4-H teen leaders	Identify 4-H programs that succeeded in retaining teen leaders	°NARS °CROS/SS °ERIC
Del Yoder, CRD Specialist, WVU	Organizing and financing community radio stations.	Identify guidelines to offer in helping a county establish a community-run radio station.	°NARS °CROS °PTS °AAED °ERIC °INFO °NTIS
John Rohrer, CRD Ohio State University	°Economics of siting solid waste facility	°Develop model to help local government locate solid waste facilities	°ENVIROLINE
	°Local income tax to finance schools	°Determine whether school districts use local income tax	°ERIC
	°Litter control education	°Identify earlier programs, materials	°ERIC

Kay Rockwell, Extension Evaluation Technologist, Nebraska	Educational TV study	Complete basic review of literature to prepare for telephone interviews	°ERIC
Harriet Kohn, EFNEP Specialist and Nutrition Researcher, Nebraska	Effect of nutrition education on food behaviors	Preliminary review of the literature	°ERIC
Elwynn Taylor, Extension Climatolo- gist, Iowa	°Growing degree days	°To identify researchers working on questions relevant to Iowa. To prepare for personal contacts.	°AGRICOLA
	°Weather and alfalfa leaf hoppers	°Same as above	°BIOSIS
Dixie Johnson, Family Resources Management Purdue, Indiana	Stress in families	Locate information about stress to include in teaching materials	°AGRICOLA
John VanEs, Rural Sociology, University of Illinois	"Fact Books" published by Illinois Social and Economic Indicators for Rural Development	Analyze census data as related to population, agriculture, economic activity, local government, education, health, and safety.	°Census Data Tapes

* Based on trial searches and interviews while on sabbatical, fall, 1984.

JSLONG/wpumb